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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,462	08/02/2000	Masahiro Nozaki	AD 6629 US NA	7855

23906 7590 08/22/2002

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
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WILMINGTON, DE 19805

EXAMINER

WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1711

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DATE MAILED: 08/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-5 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-5 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,013,786 (Payne et al), on record, in view of U.S. 5,965,655 (Mordecai et al) newly cited in this action.

Payne et al teach a thermoplastic polyamide molding composition comprising 42-90% thermoplastic polyamide including polyamides from aromatic dicarboxylic acids, 3% rubber impact modifiers, such as rubbers from ethylene, propylene, butadiene and (meth)acrylates, for example EPDM preferably grafted with carboxylic acids and rubbers comprising copolymers of ethylene and (meth)acrylic acid, and

9.5-55% fibrous or particulate fillers, in particular, wollastonite.

Mordecai et al teach compositions of a thermoplastic polymer (specifically taught polyamide), a fine needle like particulate mineral (wollastonite) and a suitable elastomer. The wollastonite has average length of 1-50 microns, average diameter of 0.1-10 microns and average aspect ratio of about 6, or 1-10. See column 2, lines 39-61, column 9, lines 2-33 and 62 – column 10.

The main difference between the claimed invention and the teaching of Payne et al is that Patentees fail to provide the dimensional characteristics of the wollastonite particles. However, Mordecai et al use the same wollastonite fillers for blending with polyamide and elastomers, in proportions within Applicants' claimed ranges and clearly recognize that the wollastonite used in such blends have number average length of about 0.1 to about 50 micron and a mean number average diameter of about 0.1 to about 10 micron, preferably average length of about 5-40 micron, the number average aspect ratio is about 6, preferably ranging 1-10. Comparing these teachings with Applicants' claimed dimensions, the Applicants are merely listing the dimensional characteristics of the conventional wollastonite.

Therefore, in view of the difference between the subject matter as a whole sought to be patented and the totality of the teachings of prior art, as established above, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, to follow the teachings of Payne et al and Mordecai et al and formulate the polyamide blend with an elastomer and a mineral filler wollastonite, and include the dimensional characteristics of number average length, number average diameter and the average aspect ratio for wollastonite as taught in Mordecai et al.

The motivation for combining the references comes from the fact that both are directed to the same polyamide blend containing polyamide, elastomer and wollastonite. Mordecai et al provides the dimensional characteristics for the filler, which are well known in the art. It is noted that Applicants' claimed dimensions number average length of approximately 5-180 micron (Mordecai 5-40 micron), number average diameter of approximately 0.1-15 micron (Mordecai 0.1-10 micron), and the average aspect ratio of which is greater than 3:1 (Mordecai 6,

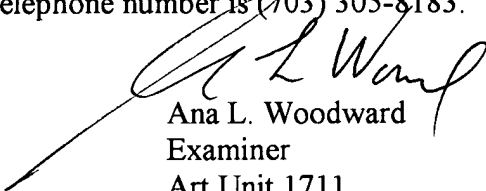
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1-10) – are much wider than the wollastonite taught in Mordecai. The comparative showing in Applicants' specification does not establish criticality for the presently claimed dimensions since it does not give the dimensions of the wollastonite Nyad G used as "prior art" filler.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (703) 308-2401. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8183.



Ana L. Woodward
Examiner
Art Unit 1711

AW
August 20, 2002